

IN THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application.

Patent Claims

1. (currently amended) A Process for laser machining of coated sheets, in which at least one topographic change projecting from the surface is produced on at least one side of at least one sheet metal by means of the laser, ~~thereby characterized, that wherein~~ the laser beam produces the at least one topographic change, in that it carries out a movement through and/or about the center of the processing surface with transverse and longitudinal components, in such a manner, that the topographic change exhibits a peak radius that is greater than the height of the topographic change, wherein the height is measured from the deepest recess of the sheet at the foot of the topographic change to its tip.
2. (currently amended) The process according to claim 1, ~~thereby characterized, that wherein~~ the sheet metal is a high strength steel.
3. (currently amended) The process according to claim 1 ~~or 2, thereby characterized, that wherein~~ the laser beam is controlled discontinuously with regard to its power and/or speed profile.
4. (currently amended) The process according to claim 1 ~~one of the preceding claims, thereby characterized, that wherein~~ the laser beam is not focused on the surface.
5. (currently amended) The process according to claim 1 ~~one of the preceding claims, thereby characterized, that wherein~~ the laser beam describes, during its movement, an ellipse, rosette or fermat figure.
6. (currently amended) The process according to claim ~~one of the preceding claims, thereby characterized, that wherein~~ at least one additional sheet is brought into contact with the at least one coated sheet in such a manner that the at least one projecting topographic change brings about the formation of a gap between the at least two sheets and wherein ~~that~~ the at least two sheets are welded to each in the area of the at least one gap, in such a manner, that vaporization productions occurring welding thereby can escape through the at least one gap.

7. (currently amended) The process according to claim 6, ~~thereby characterized, that~~ wherein the at least two sheets are welded together in such a manner, that the resulting weld seam at least partially replaces the previously produced at least one topographic change.
8. (currently amended) A coated sheet with at least one topographic change projecting from the surface, ~~thereby characterized, that~~ wherein the topographic change is evenly contoured and exhibits a peak radius, ~~which that~~ is greater than the height of the topographic change, wherein the height is measured from the deepest recess of the sheet at the foot of the topographic change to its peak.
9. (currently amended) The coated sheet according to claim 8, ~~thereby characterized, that~~ wherein the peak radius and height of the topographic change exhibit a ratio of at least 2:1.
10. (currently amended) The coated sheet with at least one topographic change projecting from the surface, ~~thereby characterized, that~~ wherein the sheet is a high strength steel.
11. (new) A process for laser machining of coated sheets, comprising:
 - producing at least one topographic change projecting from a surface of the sheet on at least one side of at least one sheet metal by means of the laser,
 - wherein the laser beam produces the at least one topographic change by carrying out a movement through and/or about the center of the processing surface with transverse and longitudinal components, in such a manner, that the topographic change exhibits a peak radius that is greater than the height of the topographic change, wherein the height is measured from the deepest recess of the sheet at the foot of the topographic change to its tip.
12. (new) The process according to claim 11, wherein the sheet metal is a high strength steel.
13. (new) The process according to claim 11, wherein the laser beam is controlled discontinuously with regard to its power and/or speed profile.

14. (new) The process according claim 11, wherein the laser beam is not focused on the surface.

15. (new) The process according to claim 11, wherein the laser beam describes during its movement an ellipse, rosette or fermat figure.

16. (new) The process according to claim 11, wherein at least one additional sheet is brought into contact with the at least one coated sheet in such a manner that the at least one projecting topographic change brings about the formation of a gap between the at least two sheets, and wherein the at least two sheets are welded to each other in the area of the at least one gap, in such a manner, that vaporization productions occurring during welding can escape through the at least one gap.

17. (new) A process according to claim 16, wherein at least two sheets are welded together in such a manner, that the resulting weld seam at least partially replaces the previously produced at least one topographic change.